



LONDON- WEST MIDLANDS ENVIRONMENTAL STATEMENT

Volume 5 | Technical Appendices

CFA7 | Colne Valley

Baseline report (CH-001-007)

Cultural heritage

November 2013

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Department for Transport

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1 Introduction

1.1 Structure of the cultural heritage appendices

1.1.1 The cultural heritage appendices for the Colne Valley community forum area (CFA7) comprise:

- baseline reports (this appendix);
- a gazetteer of heritage assets (Volume 5: Appendix CH-002-007);
- an impact assessment (Volume 5: Appendix CH-003-007); and
- survey reports (Volume 5: Appendix CH-004-007).

1.1.2 Maps referred to throughout the cultural heritage appendices are contained in the Volume 5, Cultural Heritage Map Book.

1.2 Content and scope

1.2.1 This baseline provides the evidence base against which the assessment of assets that may be affected by the Proposed Scheme can be determined. It collates information about known and potential heritage assets from a variety of sources and presents a chronological description and discussion of the development of the study area, placing assets within their historical and archaeological context.

1.3 Study area

1.3.1 The Colne Valley study area lies within the London Borough of Hillingdon, the South Buckinghamshire District of Buckinghamshire, and the Three Rivers District of Hertfordshire. To the east of the Colne the study area lies within the Greater London Authority, to the west within the parishes of Denham and Rickmansworth.

1.3.2 All non-designated and designated assets within the land required for construction of the Proposed Scheme and within 500m of it have been detailed in this baseline assessment. In addition, designated heritage assets have been examined within the zone of theoretical visibility (ZTV).

1.3.3 All identified assets are listed in Volume 5: Appendix CH-002-007 under unique reference numbers in the format CVA001 and shown on Maps CH-01-023 to CH-01-024 and CH-02-011 (Volume 5, Cultural Heritage Map Book).

1.4 Data sources

1.4.1 Sources examined as part of this baseline assessment include published secondary sources, cartographic sources, historic environment record (HER) data for non-designated heritage assets and English Heritage National Heritage List (NHL) data for designated assets. A full list of published sources can be found in Section 10 of this appendix.

1.5 Surveys undertaken

1.5.1 The following surveys were undertaken as part of the environmental impact assessment (EIA) process:

- light detection and ranging (LiDAR) survey of the majority of the land required, temporarily and permanently, for construction of the Proposed Scheme and land around it (see Volume 5: Appendix CH-004-007); and
- aerial photograph and hyperspectral survey of the majority of the land required, temporarily and permanently, for construction of the Proposed Scheme and land around it (see Volume 5: Appendix CH-004-007).

2 Geology, topography and landform

- 2.1.1 The study area lies within a wide area of low rolling hills dissected by the Colne Valley which runs in a roughly north to south direction and is a tributary the Thames.
- 2.1.2 The solid geology is predominantly Eocene London Clay to the south-east of the study area. To the west of the Colne the solid geology is predominantly the clay, sand and silt of the Eocene Lambeth Group and more extensively the Cretaceous Seaford Chalk Formation and Newhaven Chalk Formation.
- 2.1.3 This study area marks the western extent of the Middle Thames Valley which includes the Thames tributaries of the Rivers Colne and Wye. The central valley floor comprises the fluvial Thames Terrace deposits associated with the Colne and the former Thames river channel.
- 2.1.4 In the River Thames floodplain the superficial geology is characterised by river terraces. These terraces are associated with the Thames and those of its tributaries: the River Thame to the north and the River Colne. The terraces are former river beds that are now preserved above the current floodplain as a result of on-going tectonic uplift and consequent down cutting as rivers have sought to maintain their base level. It is in association with the multiple terrace deposits that the most extensive and important Palaeolithic remains have been recorded.
- 2.1.5 Within the last 60 years the extensive Thames Terrace sequence has been re-evaluated and reconstructed. Four principal terraces have been identified within this complex sequence for the Thames in Buckinghamshire¹:
- the Harefield Terrace believed to be pre-Anglian in age;
 - the Boyn Hill Terrace believed to have been deposited between circa 420,000 and 340,000 BC;
 - the Lynch Hill Terrace believed to have been deposited between circa 340,000 and 300,000 BC; and
 - the Taplow Terrace believed to have been deposited circa 250,000 BC.
- 2.1.6 Geomorphological mapping prior to the 1960s also led to the recognition of further terraces both between and above these main terraces. In stratigraphical order the Rassler, Winter Hill and Black Park Terraces lie between the Harefield and Boyn Hill Terraces, and the Lynch Hill Terrace lies between the Boyn Hill and the Taplow Terraces. Later studies have concentrated on the aggradational deposits themselves, rather than the terrace 'flats' formed by their upper surfaces and have allowed several earlier Thames degraded and fragmentary aggradations to be recognised. The highest and earliest elements of the terrace sequence (the Nettlebed, Stoke Row, Westland Green, Satwell, Beaconsfield and Gerrards Cross Gravels) have been defined in recent years².

¹ Bridgland, D. R., (1994), *Quaternary of the Thames*: Geological Conservation Review No. 7, Chapman & Hall, London.

² Bridgland, D. R., (1994).

- 2.1.7 Generally each of these terraces consists of a body of sand and gravel overlain by a deposit of loess-rich material (brick earth) or alluvium. At some locations floodplain or fine-grained channel fills are preserved within the terrace sequence. The Middle Thames Valley provides the most completely preserved record of Thames evolution there being a staircase of at least twelve terraces recognised in the Slough - Beaconsfield area which includes the four principal terraces mentioned. The highest of these extend along the Vale of St Albans whereas the lower, younger gravel terraces follow the modern river into west London³. Terrace gravels also exist in the Colne Valley, comprising the Colney Street Gravel member broadly equivalent to the Shepperton Gravel deposits. These are overlain by an unstratified deposit of brick earth. An extensive deposit of brick earth, the Langley Silt 'Complex' which is predominantly unstratified over much of its distribution though in places stratified, often contains artefacts .The term brick earth is applied in the Thames Valley to any fine-grained sediment that was suitable for brick-making
- 2.1.8 The complexity of the Thames terrace deposits is a result of changes to the drainage basin during the Anglian/Elsterian glaciation. Prior to that event the Thames flowed north-east of its present course from the Beaconsfield area, across East Anglia to the North Sea. This route persisted, albeit with relatively minor changes, until the Anglian/Elsterian glaciation when the valley north of London was blocked by an ice sheet bringing about the routing of the Thames into the modern valley through London⁴.
- 2.1.9 Human activity through all periods in the study area has largely been concentrated within and immediately adjacent to the valley of the Colne and especially on, and immediately adjacent to, the Terrace Gravels.

³ Bridgland, D.R. and Gibbard P.L., (1997), Quaternary River Diversions in the London Basin and the Eastern English Channel. In: *Geographie physique et Quaternaire*, Vol 51. No. 3, Les Presses de l'Université de Montréal, Montreal.

⁴ Bridgland, D.R. and Gibbard P. L.,(1997).

3 Archaeological and historical background

- 3.1.1 This section provides a chronological overview of the archaeological evidence within the study area. This baseline review forms a contextualisation within which individual assets can be considered. Descriptions of all archaeological assets, whether designated or not, which lie wholly or partially within land required for construction of the Proposed Scheme, or within 500m of the edge of this land, are contained in Gazetteer in Volume 5: Appendix CH-002-007. The assets are mapped on Maps CH-01-023 to CH-01-024 and CH-02-011 (Volume 5, Cultural Heritage Map Book). The Gazetteer also considers all designated archaeological assets within the ZTV. The Gazetteer entries include assessments of significance where appropriate.

3.2 Early prehistory (circa 500,000 - 1,500 BC)

- 3.2.1 During the Middle Pleistocene Britain fluctuated in geographical terms between being an island and being linked to the rest of mainland Europe as sea levels rose and fell in response to major global climatic change.
- 3.2.2 Within this context a pattern of hominin colonisation, occupation and abandonment in Britain can be viewed. This dates from the late Cromerian Complex⁵ circa 700,000 years ago, during which the earliest evidence for human activity is recorded; notably at Pakefield, Suffolk (750,000- 680,000 years ago) though an earlier date (circa 800,000 years ago) has been claimed from Happisburgh; Waverley Wood and Westbury-sub-Mendip (565,000 years ago) and Boxgrove and Swanscombe (500,000-400,000). The evidence of an almost continuous link to Mainland Europe prior to the Anglian glaciation circa 450,000 years ago (the beginning of marine oxygen isotope stage 12⁶) implies that the absence of humans from Britain prior to the late Cromerian Complex is not due to geographical barriers but an absence of humans from north-west Europe. From this period onwards populations ebbed and flowed.
- 3.2.3 The appearance of early hominins⁷ in Britain during the Lower and Middle Palaeolithic periods is followed much later around 40,000 BC by that of anatomically modern humans. The arrival of anatomically modern humans defines the beginning of the Upper Palaeolithic.
- 3.2.4 Evidence for Palaeolithic hominin and human activity is predominantly informed by the presence of stone tools, commonly also by palaeoenvironmental remains and far less commonly by other organic remains such as butchered bones and wooden tools. The majority of all such finds derive from the fluvial sands and gravels that comprise the Terrace Gravels⁸.

⁵ A sequence of inter-glacials that predate the Anglian glaciation. This complex marked a colder period during which the Thames flowed on a course to the north of London into a delta with the Rhine and Scheldt in the southern North Sea.

⁶ A method of dating Pleistocene strata through measuring oxygen isotopes from deep sea cores to identify past climatic changes such as cold glacial periods and intervening warmer interglacials.

⁷ The early human subspecies that form the immediate ancestry for modern humans. This includes Homo antecessor and Homo heidelbergensis.

⁸ Silva, B.,(2008), *An Archaeological Resource Assessment of the Lower and Middle Palaeolithic in Buckinghamshire*, Prepared for The Solent Thames Research Framework Resource Assessment: The Lower/Middle Palaeolithic Period, Oxford Archaeology, Oxford.

- 3.2.5 Within the Buckinghamshire HER there are around 400 records that refer to Palaeolithic finds. Few of these are the result of formal archaeological excavation but represent finds made during construction, quarrying or fieldwalking. Where the condition of lithic finds is recorded the majority are described as rolled, suggesting they were the result of secondary deposition. Rarer discoveries such as at Station Pit in Taplow circa 15km to the south-west of route, comprise hundreds of lithic artefacts with very little evidence of degradation or rolling, suggesting that they are close to their original point of deposition, if not actually in-situ⁹.
- 3.2.6 Within the Middle Thames Valley only one artefact, of dubious provenance, has been reported from a gravel pit in the Harefield Terrace, supposedly a pre-Anglian deposit¹⁰. More convincing and prolific evidence has been found in the sands and gravels of the Boyn Hill Terrace at quarries such as Deverill's and Cooper's Pits (outside of the study area), which yielded numerous artefacts dating from the Hoxnian/Wolstonian Complex¹¹. The artefacts found at these sites are all rolled, which would suggest they are not in situ. Coarse terrace gravels such as those in which these artefacts were recovered are very unlikely to contain in situ archaeological remains. Rather it is the sandwiched interglacial strata that might contain such remains. Other finds from the Boyn Hill Terrace of rolled flakes and hand axes have also been recorded. Wymer concludes that this evidence reflects human occupation during marine oxygen isotope stage 11 under temperate interglacial conditions, although it has yet to be determined whether the artefacts relate to interglacial phases of Boyn Hill Terrace aggradation¹². Archaeological finds from the Lynch Hill Terrace Gravels are also extensive and are thought to have been deposited between circa 340,000 and 300,000 BC. These are also generally of a similar nature to those recorded on the Boyn Hill Terrace and are typified by Acheulian¹³ hand axes. The most prolific sites are at Danefield Pit (outside of the study area) where over 130 artefacts were recovered (almost all rolled) and from several quarries at Burnham, about 10km south-west of the route where over half the artefacts recovered were sharp and therefore probably in situ. Superimposed above the Boyn Hill Terrace are loess deposits (particularly in the Burnham area) which have proved to be rich sources of in situ sharp and unrolled hand axes and flakes. The Taplow Gravel Terrace dating between circa 250,000 to 120,000 BC appears to contain evidence for three glacial and two temperate episodes. Only five sites with Palaeolithic finds have so far been recorded in the Middle Thames Valley: Dean's Pit and Marlow Brickyard in Marlow, Well End Pit in Well End, Station Pit in Burnham and Wexham (all outside of the study area). These finds include a few Levallois flakes¹⁴, the majority being rolled. At Well End Pit and Station Pit faunal remains were also recovered including at the former, mammoth and straight-tusked elephant teeth and at the latter mammoth, woolly rhino and a musk ox.

⁹ Silva, B. and Farr, L., (2010), Earliest Buckinghamshire. In: *An Illustrated History of Early Buckinghamshire*, Farley, M.(ed.), Buckinghamshire Archaeology Society, Aylesbury.

¹⁰ Wymer, J.J., (1968), *Lower Palaeolithic Archaeology in Britain as represented by the Thames Valley*, John Baker. London

¹¹ A middle Pleistocene cold period of glacials and inter-glacials from which acheulian stone tools have been recovered indicating at least episodic hominin activity.

¹² Wymer, J.J., (1999), *The Lower Palaeolithic Occupation of Britain*, Trust for Wessex Archaeology, Salisbury.

¹³ Stone handaxe typology typical throughout the Lower Palaeolithic.

¹⁴ Stone tool working that although first found in the Lower Palaeolithic is more typical of the Middle and Later Palaeolithic and in particular Neanderthal tools.

- 3.2.7 Amongst the assemblages of Lower to Middle Palaeolithic artefacts recovered in the Middle Thames Valley and described by Silva¹⁵, a number have been found within the surrounding landscape, on or close to the terrace gravels within the study area and the Chalfonts and Amersham study area (CFA8). These finds have predominantly been made during gravel extraction and comprise a scatter of artefacts at Denham Green, 1km south of the route (outside of the study area), specifically in an area of undifferentiated terrace deposits between the Winter Hill Gravel Terrace and the Taplow Gravel Terrace. Slightly further to the north-east another group of hand axes, cores, numerous flakes and a scraper were recovered from locations just south of Northmoor Hill on the western edge of Broadwater Lake Nature Reserve (CVAo44). These artefacts were found during construction of a road cutting for Denham Way (North Orbital Road) on the edge of the Winter Hill Terrace, adjacent to the Taplow Gravel Terrace and within alluvium associated with the present Thames floodplain. These are probably reworked examples.
- 3.2.8 Very little is at present known regarding the Upper Palaeolithic in Buckinghamshire, although the Middle Thames Valley and specifically the Colne Valley have yielded some evidence of human activity. At Denham, approximately 2km south-east of the route and in part lying within the study area, a scatter of characteristic Upper Palaeolithic tools was recorded, which included a flint core from which a number of long-blade fragments and flakes had been removed¹⁶. The long-blade industry is considered a marker of the final stages of the Palaeolithic, or Epipalaeolithic, circa 10,700 - 9,800 BC¹⁷. The nearby discovery of a wild boar tusk and bone in a stratigraphically contemporary deposit may indicate on-site butchering¹⁸. The overlying peat deposits were radiocarbon dated to circa 9,000 BC. Elsewhere, at the Sanderson site, between the River Colne and Colnbrook, large flint flakes which may be of Upper Palaeolithic origin were recovered in an otherwise Early Mesolithic assemblage¹⁹.
- 3.2.9 Three Ways Wharf, a low-lying site in the Colne floodplain, approximately 2.8km to the south-east of the route at Uxbridge has yielded significant evidence of human activity during the sub-arctic conditions of the Younger Dryas (a 1,000 year cold period circa 12,000 BC immediately prior to the onset of the Holocene). The site occupies a land surface at about 31m above Ordnance Datum (AOD), resting on gravels which have been correlated with the Colney Street Gravels, broadly equivalent to the Shepperton Gravel Member²⁰. Over this land surface lay organic mud derived from a sedge swamp formed as a result of the rising water table from circa 9,000 - 7,500 BC. The overlying strata comprised primarily medieval and post-medieval activity and Holocene alluvial sediments²¹. Palaeoenvironmental assessments were

¹⁵ Silva, B., (2008), *An Archaeological Resource Assessment of the Lower and Middle Palaeolithic in Buckinghamshire*, Prepared for The Solent Thames Research Framework Resource Assessment: The Lower/Middle Palaeolithic Period, Oxford Archaeology, Oxford.

¹⁶ Farley, M. (ed), (2010), *An illustrated History of early Buckinghamshire*, Buckinghamshire Archaeology Society, Aylesbury.

¹⁷ Hey, G., (2010), *Solent- Thames research framework Resource Assessment: Late Upper Palaeolithic and Mesolithic Period*, Solent Thames Research Framework, Oxford Archaeology, Oxford.

¹⁸ Farley, M. (ed), (2010), *An illustrated History of early Buckinghamshire*, Buckinghamshire Archaeology Society, Aylesbury.

¹⁹ Hey, G., (2010), *Solent - Thames research framework Resource Assessment: Late Upper Palaeolithic and Mesolithic Period*, Oxford Archaeology, Oxford.

²⁰ Gibbard, P. L., (1985), *Pleistocene History of the Middle Thames Valley*, University press: Cambridge.

²¹ Lewis, J.S.C. and Rackham, J., (2011), *Three Ways Wharf, Uxbridge: A Late Glacial and early Holocene Hunter-gatherer Site in the Colne Valley*, MOLAS Monograph Vol. 51, MOLA, London.

made of the pollen, molluscan, faunal and sediment evidence. These assessments were made from deposits contemporary with and sealing the archaeological layers. The assessments indicated a broadly open landscape with locally growing pine and some oak, elm and hazel. The sedge swamp deposits that sealed the last recorded evidence of human activity appear to have been fairly extensive and have also been recorded elsewhere in the Colne Valley and other tributaries of the Thames²².

- 3.2.10 A number of Early Mesolithic (circa 10,000 - 6,500 BC) sites are known in the braided system of the Lower Colne Valley, the most well-known of these are at '100 Acres' and Boyer's Pit, Denham and Sandstone, Iver (all outside of the study area). The River Colne is fed by the Rivers Chess, Misbourne and Alderbourne which cut through the Chalk of the Chilterns and at Sandstone (Iver) flint tools were recorded lying upon the basal floodplain gravels²³. Flint assemblages from sites at Denham and Iver within the Cone Valley have also been classified as Early Mesolithic. Some of the Early Mesolithic flints from Denham were recovered from an alluvial deposit directly underlying the topsoil²⁴.
- 3.2.11 Upper Palaeolithic or Early Mesolithic material has not to date been found on or close to the terrace gravels and alluvial deposits of the River Colne or Thames Valley within the study area.
- 3.2.12 Later Mesolithic (circa 6,500 - 4,000 BC) sites in the wider region are generally located on rising ground overlooking river valleys and watercourses, and are frequently found on sandy geology such as the Corallian Ridge and the Hampshire Greensand²⁵. Hunter-gatherer groups in the Mesolithic increasingly began to exploit a wider range of landscapes and localities²⁶.
- 3.2.13 The only evidence within the study area of later Mesolithic date is recorded at Dews Farm (CVA022)²⁷ and could indicate a potential for later buried archaeological remains within the floodplain alluvium.
- 3.2.14 The Neolithic (circa 4,000 - 2,400 BC) period sees the import to Britain of domesticated animals including sheep and cattle and the increasing use of domesticated wheat and new styles of pottery as well as evidence for relatively long distance trade contact to source raw materials. This period also sees an increasing importance placed on the treatment of the dead with burials and ritual sites becoming an important facet of the archaeological record.
- 3.2.15 The emphasis on ritual and the increased clearance of woodland suggests an increasing population with an associated development of an intra-communal society. By the beginning of the Bronze Age there is evidence for the development of an increasingly hierarchical society with higher status individuals being buried (often with grave goods) within round barrows. This development can often be related to the

²² Lewis, J.S.C. and Rackham, J., (2011),

²³ Hey, G., (2010),

²⁴ Farley, M. (ed), (2010)

²⁵ Hey, G., (2010)

²⁶ Barton, R.N.E. and Roberts, A. J., (2004). The Mesolithic period in England: current perspectives and new research. In: Saville, A. (ed), *Mesolithic Scotland and its Neighbours*, Society of Antiquaries of Scotland, Edinburgh.

²⁷ Lacaille, A.D., (1963), *Mesolithic Industries beside Colne Waters in Iver and Denham, Buckinghamshire*, Records of Buckinghamshire, Vol. 17, Part 3, Buckinghamshire Archaeological Society, Aylesbury.

introduction of a new pottery style (beakers) and the introduction of metalworking of copper, gold and bronze.

- 3.2.16 There remains no clear evidence for widespread clearance of woodland for arable cultivation during the Neolithic period and it is likely that Neolithic populations continued to follow a broadly nomadic life but clearing woodland glades to improve hunting, establish small areas of horticulture and to pasture herds/flocks.
- 3.2.17 Neolithic settlement activity across Southern England appears to be at best episodic and can often be identified by the deposition of middens containing food refuse and pottery²⁸. Typically such evidence is found on slopes overlooking watercourses as was usual during the Mesolithic period²⁹.
- 3.2.18 Recorded Neolithic activity in Buckinghamshire suggests that settlement continued to be situated adjacent to watercourses³⁰, with evidence frequently buried beneath colluvium³¹. The emphasis on exploitation of free-draining soils and on generally lighter soils remained, suggesting some potential for this kind of evidence at both the eastern and western extremities of the study area. The Middle and Upper Thames Valley gravels have been identified as a focus for ceremonial and burial features such as henges and round barrows. This is particularly the case at the confluence of river systems which may be of relevance when considering the area where the Colne is met by its tributary the Misbourne just to the south of the study area near Denham.
- 3.2.19 The scheduled monument of the mound to the south of The Savay (CVAo24) has been suggested as a possible Neolithic or Early Bronze Age burial mound. This mound lies within an encircling ditch with an outer bank which is a relatively typical form for a round barrow. Neolithic flints have been recovered immediately to the west (CVAo06). A ring ditch was also reportedly found during gravel extraction at Dews Farm Road Pit (CVAo10).
- 3.2.20 Settlement evidence for the Early Neolithic period commonly comprises flint and stone scatters, limited pottery remains, and occasional cut features such as pits. Numerous Neolithic to Bronze Age flints and cores have been found near Mopes Farm and Warren Farm to the east of the M25 (CVAo78). Some of these finds were in association with a prehistoric ground surface, or within pits, whilst others were not within context. Cropmarks and anomalies in geophysical survey data in this area have been interpreted as pits and enclosures possibility dating from this period. A number of prehistoric flints have been recovered from unstratified contexts during archaeological investigations off Tilehouse Lane (CVAo80).

²⁸ Allen T., Barclay, A. & Lamdin-Whymark, H., (2004), Opening the wood, making the land. The study of a Neolithic landscape in the Dorney Area of the Middle Thames Valley. In: *Towards a New Stone Age*.

²⁹ Hey, G. and Barclay A., (2007), *The Thames Valley in the fifth and early fourth millennium cal BC: The appearance of domestication and the evidence for change*, Proceedings of the British Academy 144, London.

³⁰ Kidd, S., (2010), Prehistoric Farmers. In: Farley, M. (ed), *An Illustrated History of Early Buckinghamshire*, Buckinghamshire Archaeology Society, Aylesbury.

³¹ Bradley, R., (2010) The Neolithic and Early Bronze Age. In: *The Solent Thames Archaeological Research Framework*, Oxford Archaeology, Oxford.

3.3 Later prehistory (circa 1,500 BC - AD 43)

- 3.3.1 The Middle Bronze Age (circa 1,500 - 1,100 BC) through to the later Iron Age (circa 400 BC –AD 43) is the period during which settlement and the associated evidence for agricultural practices and land division becomes more visible in the archaeological record.
- 3.3.2 From the Middle Bronze Age settlement became more permanent; usually as single farmsteads only large enough to accommodate a single family unit³². A typical later prehistoric settlement in Southern England may include buried evidence for at least one roundhouse in the form of a circular gully with postholes and associated features such as an enclosure ditch, ditched fields, paddocks and trackways.
- 3.3.3 Larger scale land division began to occur within the Bronze Age evidence for which survives as extant landscape features elsewhere in Buckinghamshire. Surviving evidence for this land division comprises linear earthworks and ditches which do not correspond to later field boundaries.
- 3.3.4 Larger scale societal divisions may well have been present but are not clear cut until the introduction of tribal coinages in the late 1st century BC. There is little evidence for any centralisation in the Late Bronze Age (circa 1,100 - 700 BC) and Early Iron Age (circa 700 - 400 BC) within the study area.
- 3.3.5 The study area lies on the border of the Eastern Zone defined by Cunliffe³³ and the Thames Valley. It may, therefore, have more in common with East Anglia rather than the Thames Valley. Settlement in the Eastern Zone is typified by undefended open and village like settlements with few hill forts. As with earlier periods these settlements are most likely to be found overlooking water courses in landscapes with free-draining soils suitable for agriculture, and as such the potential for such features is considered greatest on the slopes overlooking the Colne Valley.
- 3.3.6 By the 1st century BC the study area lay within the western part of the territory of the Catuvellauni³⁴ a tribal grouping with a powerbase centred in the St Albans area and who held territory including much of Buckinghamshire, Hertfordshire, Bedfordshire and the western side of Cambridgeshire. The southern boundary of the territory lay on the Thames.
- 3.3.7 It has been established from mollusc and pollen evidence that the landscape of much of Southern England had been largely cleared of woodland in the Bronze Age. Archaeological investigations at Denham Park Farm (CVA076), immediately southwest of the Chiltern Tunnel Southern Portal approach site found features including linear ditches and three post-holes that might have defined a structure from which pottery of consistently Early Iron Age date was recovered. Other linear features contained Late Iron Age and Romano-British pottery. Given the low density of finds

³² Kidd, S., (2009), *Buckinghamshire Late Bronze Age and Iron Age: Historic Environment Resource Assessment*, Buckinghamshire County Council website.

³³ Cunliffe, B., (2009), *Iron Age Communities in Britain*, 4th Ed, Routledge, London.

³⁴ Cunliffe B., (2009).

combined with the linear features the area has been interpreted as one in long term agricultural use.

- 3.3.8 A number of archaeological sites have also been identified on aerial photographs. The first near Tilehouse Lane (CVAo80) appear to comprise cropmark evidence for enclosures and pits but archaeological evaluation of the site proved inconclusive. Another area of cropmarks near West Hyde (CVAo87) also appears to indicate the presence of ditches and pits.

3.4 Romano-British (AD 43 - 410)

- 3.4.1 Changes in settlement patterns in Buckinghamshire in the Late Iron Age/Roman period have been described as 'subtle rather than dramatic'³⁵. There is sufficient evidence to point to continuity of settlement from the Late Iron Age into the centuries following the Roman invasion of Britain in AD 43. The study area during this period formed part of the Roman civitas of Catuvellaunorum, centred on the town of Verulamium (St Albans)³⁶.
- 3.4.2 Settlement of Roman (AD 43 – 410) date is usually more extensive in scale than that of later prehistoric date, with a far greater variety of material culture such as pottery, worked bone, metalwork and glass. There is also widespread use of stone, brick and tile for building.
- 3.4.3 Generally there appears to be an increase in population and settlement density between the 1st century BC and 1st century AD, although there is some evidence during this period for settlement abandonment and dislocation in association with a changing emphasis of where settlement was located.
- 3.4.4 Major re-organisation of the countryside occurred throughout the 1st century BC to 2nd century AD. The changes from the second half of the 1st century AD may have been a consequence of the establishment of the Roman road network and the growth of both large towns and more localised market centres.
- 3.4.5 Abandonment of settlement locations appears to be widespread from the 2nd century AD; this may reflect a fundamental re-organisation of the countryside with evidence for differential development marked in much of Southern England by the establishment of villas and/or farmsteads with Roman style buildings rather than the roundhouses typical of the Iron Age. This re-organisation was radical and supported a growing and complex pattern of urban settlement for the next 200 years and possibly beyond.
- 3.4.6 The pattern of Romano-British rural settlement in the Colne Valley was likely to have been one of dispersed agrarian farmsteads. An example of such a settlement has been identified during archaeological investigations at Denham Park Farm and Chenies (CVAo76) where a Late Iron Age settlement appears to have continued to develop during the 1st and 2nd centuries AD.

³⁵ Kidd, S., (2010).

³⁶ Zeepvat, R. J. and Radford, D., (2007), *Roman Buckinghamshire. (draft)*, Solent Thames Research Framework, Oxford Archaeology, Oxford.

3.5 Early medieval (AD 410 - 1066)

- 3.5.1 Evidence for the post-Roman transition period in Buckinghamshire is extremely rare. There are few sites or finds of early medieval (AD 410 - 1066) date within the study area. The investigations at Denham Park Farm (CVA076) found no evidence of activity after the mid-2nd century AD until the late medieval period. This may indicate refocusing of settlement onto lighter soils in the post-Roman period and a move away from the Roman road network³⁷.
- 3.5.2 Much of the evidence for the 5th to 7th centuries comes from cemeteries, although place names can also be a very useful indicator of settlement activity of this period. Cemeteries of this period are often sited on prominent points in the landscape and it is not unusual to find them associated with prehistoric barrows. Some Romano-British cemeteries also continue in use into the earlier part of this period, suggesting that even if Romano-British settlement sites were not continuing in use that settlement was still focussed close to them. No certain Anglo-Saxon cemeteries have been identified within the study area although the find of an Early Saxon spearhead from near Dews Farm (CVA021) could indicate that a burial was destroyed here during gravel extraction.
- 3.5.3 Settlement of 5th to 7th century date in southern England tends to be scattered and based on small hamlets/farmsteads usually focussed on a small number of small timber halls with associated sunken-featured buildings. These settlements may also be associated with small ditched fields and trackways. Across southern England, and especially on the margins of the Thames Valley, these settlements often exist close to former more nucleated Romano-British occupations and may represent a shifting and scattering of settlement rather than complete abandonment. There is, however, evidence to indicate that areas on lighter, easily tilled soils near water sources were favoured and that intractable clay soils were abandoned for occupation, but may have continued in use for timber and wood pasture.
- 3.5.4 From the 7th century onwards the archaeological record becomes clearer as documentary sources become available and the evidence from buried artefactual and structural remains more robust. The area lay on the border between the Anglo-Saxon kingdom of Mercia and its southern rival Wessex, the boundary of which generally lay along the Thames. This period also sees the widespread introduction of Christianity across the region and associated church foundations, many of which remain the locations of existing churches.
- 3.5.5 Settlement names including the element 'worth' meaning enclosure have been shown to date from a relatively early within the Anglo-Saxon period and it is known that Rickmansworth to the north of the study area had been given to the Abbot of St Albans by King Offa of Mercia in the 8th century.
- 3.5.6 During the 9th to 11th centuries there was a general shift away from dispersed settlement to nucleated villages and many of the settlements in the area may origins in the Late Saxon period (circa 850 - 1066). Identification of this is often difficult due to

³⁷ Zeepvat, R. J. and Radford D., (2007).

such settlements being at least partly concealed by subsequent development. Denham (CVA013) is first mentioned in an early Norman legal document³⁸ as Deneham suggesting a Late Saxon origin.

- 3.5.7 Denham (CVA013) and Harefield (CVA068) are both recorded in the Domesday Book. Harefield was held by Countess Goda in 1066 and comprised 25 households, two mills and four fisheries. This was therefore a relatively large settlement for the period. Denham comprised 18 households, two mills and three fisheries and was held by the Abbey of Westminster, having been granted it by the Saxon Theng Wulfstan. Rickmansworth was by this time a relatively large settlement of 45 households. It was still held by the Abbey of St Albans, but had only one mill.
- 3.5.8 Domesday indicates that the area was relatively heavily wooded with Denham having woodland sufficient for 300 pigs whilst Harefield and Rickmansworth each had woodland for 1,200 pigs.

3.6 Medieval (1066 - 1539)

- 3.6.1 The broad pattern of landscape and settlement which exists in the study area today was laid out during the early medieval and medieval period. Clustered villages surrounded by agricultural hinterlands predominate with scattered manors and farmsteads in the surrounding countryside.
- 3.6.2 At Domesday there was only one manor in Denham known as Denham Manor or later Denham Court and held by the Abbey of Westminster. In 1166 the Manor was split when a sub-manor was assigned to Angodus Durdent and became known as Denham Durdent. In 1227 Denham Manor was granted a market and an annual fair. A number of documents refer to Denham as a borough though there is no evidence of a corporation or of the settlement ever becoming truly urban. By the 15th century it was clear that attempts to compete with the nearby market centre of Uxbridge had failed and Denham remained essentially a village.
- 3.6.3 The exact location of the original Denham Manor House is subject to some debate; the two likely locations being Denham Court (CVA007) and Denham Place (CVA001). Denham Place may be the "site of the old Manor House" although in 1596 the Manor was transferred to the Bowyer family and documentation from this event describes Denham Court (CVA007) as Denham Manor and Denham Place (CVA001) as the "Capital Messuage" (principal house/residence)³⁹.
- 3.6.4 Denham Durdent was held by the Durdent family until 1511 when it was forfeited and granted to the trustees of Savoy Hospital, later the Hospital of St Thomas. In 1874 it was sold to the Godlake family but retains the name The Savay or Savay Farm (CVA021). The extant farm house building at Savay Farm is based around a 14th century aisled hall with first floor inserted in the 16th century. The origins of Savay Farm extend back to AD 750 when the site was occupied by a church house. Part of the foundations of this building remain in those of the extant dwelling. A house was

³⁸ Kemble J. M., (1848), *Codex Diplomaticus Aevi Saxonici*, Sumptibus Societatis, London.

³⁹ Page, W. (ed), (1925), *A History of the County of Buckinghamshire: Volume 3*, Victoria County History, London.

built on the site in 1125 by the Durdent Family who had become lords of the Manor of Denham Durdent. The Durdents lived at the Savay for around 250 years before ownership passed to the Abbey of Westminster who let it to various tenants, those of the longest held tenancy being the Morton Family, who occupied it for a further 250 years.

- 3.6.5 The Manor of Harefield on the eastern side of the valley was held by Countess Goda at Domesday. Thereafter the Manor of Harefield passed to Richard Son of Earl Brion and thence to a number of knights and gentry until 1585 when it first entered the ownership of the Newdegate family. The manor was situated close to the Church of St Mary at Harefield (CVAo62).
- 3.6.6 A number of other medieval manorial sites are located within the study area including Pinesfield (Pynchfield Farm) (CVAo91), South Harefield (CVAo42), Le Troy (CVAo79), and possibly Dews Farm (CVAo22).

3.7 Post-medieval (1539 - 1900)

- 3.7.1 The pattern of settlement established in the medieval period forms the basis for the pattern which continued through the post-medieval period (1539 – 1900) to the present day.
- 3.7.2 The character of post-medieval settlement evidence is one in which surviving built structures are more prevalent, although buried evidence similar to that of medieval date but typically with a greater quantity and variety of artefactual evidence will still be present as buried evidence.
- 3.7.3 The post-medieval period also witnessed the widespread abandonment of the medieval agricultural organisation based on open fields with its ridge and furrow strips divided by headlands. This was replaced by enclosed fields, both for arable production and to provide enclosed pasture. The enclosure of the landscape commenced in the later medieval period and accelerated after the final dissolution of the monasteries under Henry VIII between 1536 and 1539, which brought more land into private ownership and the commensurate rise of a gentrified class.
- 3.7.4 The widespread enclosure of the landscape to create the present arrangement of hedged fields and winding tracks may have begun with the dissolution of the monasteries in the 16th century and accelerated with the introduction of new farming techniques during the 17th century.
- 3.7.5 A number of large houses established by the gentry are present within the Colne Valley and are often associated with surrounding planned estates as at Denham Place (CVAo01), Denham Court (CVAo07), The Fishery (CVAo34) and Harefield Place (CVAo55 and CVAo58).
- 3.7.6 The manor house at Harefield had stood on Harefield Place until 1660 when it burned down. It was rebuilt, shortly after 1675, by Sir Richard Newdegate. Harefield Place fell into disrepair and was demolished in 1813. A new manor house was constructed (also known as Harefield Place CVAo54) which was acquired in 1938 by the local authority and used as a hospital. In 1959 the land associated with the new Harefield Place was developed as Harefield Place Golf Course.

- 3.7.7 Many of the extant farmhouses and associated agricultural buildings in the study area were built between the 17th and 19th centuries but were founded on the sites of older buildings, some dating back to the medieval period as at Pynchfield Farm (CVA092), The Savay (CVA023) and possibly Dews Farm.
- 3.7.8 Re-organisation of the countryside was accompanied by an associated change in labour division. A lower proportion of the rapidly expanding population could be employed on the land while the demands of industry and commerce led to a burgeoning urban population especially with the exponential growth in London during the 17th to 20th centuries. New markets for the agricultural produce of the study area were opened up by the improvement of roads in the late 18th and 19th centuries. Dairy farming increasingly became a staple of the local agricultural economy, especially around Harefield. In the late 18th century the Grand Union Canal (CVA102) was constructed through the study area linking London with the industrial heartland of the Midlands. During the later 19th century the construction of the railways including the Great Western Railway (GWR) (CVA020) and Uxbridge High Street Junction Railway (CVA003) provided a fast link to both London and the industrial heartland of the Midlands. These railways greatly facilitated the growth of the local economy by opening up new markets for perishable agricultural goods and encouraging population expansion within the study area by opening up the possibility of short commutes into London.

3.8 Twentieth century/modern (1900 - present)

- 3.8.1 The urban expansion of London and other settlements and infrastructure in the 20th century encouraged the development of local extractive industries to furnish bricks, mortar, road stone and ballast. This industry is clearly represented within the study area by the extensive (and now flooded) gravel and sand extraction pits that were worked in the Colne Valley during the 19th and 20th centuries. This was particularly large scale from the 1950s onwards when the extraction pits expanded to their current extent of circa 13km along the Colne Valley from near Denham to the outskirts of Rickmansworth. This has completely changed the character of the valley floor. Further widespread changes have also been made to the local landscape by alterations to post-medieval field boundaries to facilitate modern mechanised agricultural practices.
- 3.8.2 Although development has occurred in the area of Denham in the 20th century this has been concentrated in the area south of the River Misbourne and the fields belonging to Denham Court, resulting in a residential area with a distinctly separate character to the historic core of Denham which remains intact and relatively unchanged.
- 3.8.3 During World War I Harefield House served as No 1 Australian Auxiliary Hospital. The southern part of the cemetery of the Church of St Mary (CVA062) contains over 100 military graves dating to World War I. At the centre of the cemetery is a Grade II listed war memorial (CVA060) which is approached via a Portland Stone archway erected by the Imperial War Graves Commission (CVA059).
- 3.8.4 Denham Aerodrome (CVA040) was first used for flying training in 1915 when it was established as the 1st Officer Cadet Battalion; this later became the Royal Flying

Corps Cadet Wing in 1916. Nearby Marish Farm (CVAo49) was then used as the Commanding Officer's billet and the field boundaries within the area which is now the aerodrome were generally as they were when used as farm land. The immediately adjacent Denham Golf Course was laid out in 1911.

- 3.8.5 Apart from the establishment of the Denham Airfield (CVAo40) in 1917 the area north of the Great Western Railway remained as essentially agricultural land with scattered farmsteads and areas of woodland until the Denham Film Studios (CVAo36) were established in 1935 to the north of Moorhall Road. Residential development sprang up initially along the south-east side of Harefield Road and The Close on higher ground overlooking The Savay (CVAo23) by 1938, with further limited development to the west. An interesting but now lost experiment was the establishment of Denham Garden Village (CVAo30) during the 1950s for retired workers in the victualling trade. This estate was demolished in 2003. In 1960 Denham Green (CVAo28) still comprised strips of residential development along the local roads with large areas of green separating them, but by 1970 these green areas had been largely filled by residential closes and cul-de-sacs.

4 Built heritage

4.1.1 This section provides baseline information relating to built heritage assets within the land required, temporarily or permanently, for construction of the Proposed Scheme, 500m study area and wider ZTV. This section provides the following information:

- descriptions of all built heritage assets or asset groupings wholly or partially within the land required, temporarily or permanently, for construction of the Proposed Scheme. This includes descriptions of settlements where relevant;
- descriptions of all built heritage assets or asset groupings wholly or partially within 500m of the edge of the land required, temporarily or permanently, for construction of the Proposed Scheme. This includes descriptions of settlements where relevant; and
- descriptions of selected designated assets within the ZTV.

4.1.2 A broad overview of the character and form of the settlement pattern within the study area can be found in Section 6 of this appendix.

4.1.3 Further information on all these assets, plus those other designated assets which lie within the ZTV but are not described in Section 4.4 of this appendix, can be found in the Gazetteer in Volume 5: Appendix CH-002-007 . The assets are mapped on Maps CH-01-023 to CH-01-024 and CH-02-011 (Volume 5, Cultural Heritage Map Book).

4.2 Built heritage assets within the land required, temporarily or permanently, for construction of the Proposed Scheme

4.2.1 The following built heritage assets or asset groupings, both designated and non-designated, lie wholly or partially within the land required, temporarily or permanently, for construction of the Proposed Scheme. The assets are described from south to north.

Dews Farm (CVA022)

4.2.2 Dews Farm (CVA022) is a two storey brick and timber farmhouse, substantially rebuilt in the 19th century but believed to have a 15th century core. The farm as whole was originally part of the Brackenbury Estate. The Estate was visited by Queen Elizabeth I in 1603, and Dews Farm specifically was the birthplace of Cecil John Kinross, a decorated World War I soldier.

4.2.3 The value of Dews Farm owes little to its setting which has been largely destroyed. Its value lies predominantly in its possible 15th to 18th century construction and its distinction as the birth place of Cecil John Kinross for which it has been fitted with a blue plaque. Dews Farm is on the Hillingdon Borough Council's list of 'locally listed' buildings due to its association with important historical figures and for its group value within the surrounding farm buildings.

4.2.4 When constructed Dews Farm sat at the foot of the west facing slope of the Colne Valley within a bend of a watercourse running westward into the Colne. The farm sat just above the alluvial deposits of the river flood plain which probably remained

unenclosed until enclosure around the 17th century. Construction of the Grand Union Canal (CVA102) between 1793 and 1805 cut across the enclosed land west of Dews Farm dislocating it from the River Colne on the western edge of the valley.

- 4.2.5 The Great Western, London and North Eastern and Great Central (CVA020) Joint Line was constructed south of Dews Farm between 1899 and 1906 further severing it from its broader setting. The immediate setting of Dews Farm remained agricultural until the onset of large scale gravel extraction within the Colne Valley in the 1950s. This ultimately resulted in the formation of the lakes which currently extend approximately 13km along the Colne Valley and which have entirely removed the historical landscape character of the valley floor.
- 4.2.6 These elements have largely divorced Dews Farm from its historic setting though its contact with agricultural land remains to the north and something of its original character can be experienced when approaching it on a footpath. This is further exacerbated by the construction of the Activities Centre immediately to the west of the farm.

The Grand Union Canal (CVA102)

- 4.2.7 The Grand Union Canal (CVA102) is the United Kingdom's longest canal. This section forms part of the Grand Junction Canal that was built between 1793 and 1805 linking the Thames near Syon House with the Oxford Canal at Braunston. The canal reduced the distance to reach London from the Midlands by 60 miles compared with the Oxford Canal. The canal became a major freight route transporting manufactured goods and coal from the manufactories and mines of the Midlands and North to London. Since the 1960s the route has become a major thoroughfare for pleasure boaters and cruisers.
- 4.2.8 This asset can be shown to have particularly important qualities with regard to its historic fabric and legibility as a piece of 18th and 19th century engineering and infrastructure that continued to be developed into the 20th century. The setting and context in which the canal was built has been almost entirely replaced within the study area by a landscape of late 20th century lakes formed by flooded aggregate extraction pits. Elements of the historic landscape contemporary with the canal (including early post-medieval and parliamentary enclosures) are better preserved on the rising ground to its east and contribute to the canal's value.

4.3 Built heritage assets within 500m of the boundary of the land required, temporarily or permanently, for construction of the Proposed Scheme

- 4.3.1 The following built heritage assets or asset groupings, both designated and non-designated, lie wholly or partially within 500m of the land required, temporarily or permanently, for construction of the Proposed Scheme. The assets are described from south to north.

Denham Court (CVA007)

- 4.3.2 Denham Court (CVA007) is situated close to the west bank of the River Colne. Parts of the building are reputed to date from the 14th to mid-17th century. The west wing is

all that remains of the original building with most of the extant building dating from the 18th and 19th centuries. The 14th century building would have been set within a largely open field, agricultural landscape though some enclosure may have commenced. This landscape was later developed as a landscaped park surrounding the 18th century house.

- 4.3.3 Denham Court is a good example of an 18th century country house with some interesting architectural features including two painted 19th century Doric arches. Denham Court is now the Club House for the Buckinghamshire Golf Club and the landscaped gardens are now the Golf Course. Agricultural land to the east of Denham Court has been divorced from the estate to some degree by the Grand Union Canal (CVA102) and much more significantly has been subject to gravel extraction from the 1950s. The Great Western Railway has also cut the landscape north of the Golf Course. The broader setting of Denham Court has therefore been heavily modified though the Golf Course retains some of the parkland character of the 18th century. The broad setting of Denham Court contributes little to its value.
- 4.3.4 The near setting of Denham Court has been impacted to some degree by the construction of a new access road to the west and an associated car park. The complex of buildings remains intact however and the near setting within a designed parkland contributes to the value of the asset.
- 4.3.5 A pair of foot bridges (CVAo09) over the River Colne north of Denham Court once formed part of the parkland associated with Denham Court. These are Grade II* Listed. Past impacts to the setting of these are similar to those of Denham Court though the bridges retain their association with the Denham Court House.

Barn to the north west of Bourne Farmhouse (CVA108)

- 4.3.6 The Barn to the north west of Bourne Farmhouse is a Grade II listed, 17th century timber-framed threshing barn, with a clay tile roof. The barn is 5 bays wide and weatherboarded to the exterior. There are two openings, either side of the threshing floor, one of which has a lipped porch entrance, the other being gabled.
- 4.3.7 The value of the Barn lies in its historical and architectural interest as an example of post-medieval vernacular architecture. The setting of the asset within the Bourne Farm complex and its relationship with the wider agricultural landscape contributes to the value.

The Savay (CVAo23)

- 4.3.8 The Savay is a complex of buildings including the Grade I listed Savay Farmhouse Grade II listed barns, Gate Cottage, Wier Cottage and a bridge crossing the River Colne.
- 4.3.9 The value of Savay farmhouse lies primarily in it being an example of a modified late medieval building. Although the exterior of Savay Farmhouse has been extensively restored and modified since its initial construction it still retains many of its original internal features. The building incorporates the remains of a 14th century aisled hall which may have been built by Thomas Durdent. The solar wing appears to date from later in the 14th century whilst the entrance hall was incorporated circa 1500. The

study is of late 14th or early 15th century date, but the western portion of the south wing has been rebuilt.

- 4.3.10 A central chimney stack was incorporated at some time in the 16th century along with modifications to the north wing and the inclusion of a staircase in this part of the house.
- 4.3.11 The original structural timber posts, arches and framing are retained and open timber roofing is still visible in parts of the upper floor. Numerous murals including biblical themes dating from 1606 are retained and well preserved. These internal features contribute significantly to the value of the asset.
- 4.3.12 In the 19th century the house was bought by General Goodlake, the first person to be awarded the Victoria Cross. The Savay was later bought by Sir Oswald Moseley, MP for Harrow who became founder of the British Union of Fascists. During World War II Moseley was placed under house arrest at The Savay. These associations contribute much to the value of the asset.
- 4.3.13 Savay Farm as whole comprises a number of buildings situated on the west bank of the River Colne within a former moat drawing its water from the Colne. The farmhouse is associated with a range of 18th century timber framed barns. Part of the 19th century garden remains as does an 18th century bridge over the River Colne and a fishing cottage known as Weir Cottage. The relationships between these heritage assets remain largely unchanged although the garden, driveways and boundary fences have been modernised. The relationship between the farm and the River Colne also remains unchanged.
- 4.3.14 The broader historic landscape context has been removed to the east of The Savay by the excavation of gravel pits on the east side of the Colne and also much altered by the expansion of residential parts of Denham to the west. The Great Western, London and North Eastern and Great Central Joint Railway Line constructed on embankment south of The Savay between 1899 and 1906 has also severed any connection with the confluence of the rivers Misbourne and Colne to the south.
- 4.3.15 The broader setting of the Savay Farmhouse and the other associated buildings therefore does not contribute to the setting of Savay Farm. The immediate setting of the buildings and importantly their relationship with each other provide a setting broadly indicative of its original setting. Only this relationship contributes to the asset's value.

Denham Green (CVAo28)

- 4.3.16 Denham Green is a dormitory village established in the 1930s and characterised predominantly by 1930s - 1950s suburban estate housing. The value of this asset lies entirely in the historical and architectural interest inherent in the housing stock as an example of mid-20th century suburban expansion. The broader setting does not contribute to its value.

Denham Film Studios (CVAo36)

- 4.3.17 Denham Film Studios (CVAo36) were constructed in 1936 and have since been nearly completely demolished only one building which is still in use as Denham Media Park.

This building is located on sloping ground overlooking the River Colne but separated from it by trees. A more recent building has also been constructed immediately east of the studio building and connected to it.

- 4.3.18 The relationship of the studios with what is now known as the North Orbital Road remains as it did when built. On the west side of this road, however, a large housing estate has been constructed in what was an open field. Nightingale Wood though remains unchanged. Beyond the River Colne to the east, what was flat agricultural land on the alluvium of the valley floor was excavated and extracted as gravel pits in the 1950s. This area now forms a series of small lakes and a wildlife park.
- 4.3.19 The building is important as a relatively rare example of an early large scale film studio and most of its value lies in the historical and architectural interest inherent in its built fabric.
- 4.3.20 The semi-rural setting of the studios was never a vital contributor to its operation. Its broader context as a commercial operation on the outskirts of London remains unchanged as does its immediate setting on the side of the road but surrounded on three other sides by trees. The setting of the studio building therefore does not contribute to its value.

Widewater Lock (CVAo37)

- 4.3.21 Widewater Lock (CVAo37) is a conservation area that encompasses a stretch of the Grand Union Canal as it passes Widewater Lock, the former hospital buildings at South Harefield, the non-designated Horse and Barge public house (built in 1937) to the west of the canal, and the Harefield Marina. The value of the conservation area lies in the historical, engineering and architectural interest inherent in the fabric of the canal and locks.
- 4.3.22 The surrounding historic landscape has been almost entirely replaced during aggregate extraction to form the lakes that now occupy the floor of the Colne Valley. The setting of the conservation area is therefore internalised to the canal corridor.

The Marish (CVAo49)

- 4.3.23 The Marish is a grouping comprising: Denham Park Farm, a rustic Building north-west of the Marish, a barn to the north of the Marish and an 18th to 19th century thatched summer house.
- 4.3.24 The Marish is a grouping of relatively early post medieval agricultural buildings and its value lies mainly in the historical and architectural and their interrelationship as part of an early post-medieval farmstead.
- 4.3.25 The surrounding land on the north side of this farm complex is a mix of agricultural land and woodland. To the east and south however the former agricultural land has been developed as an aerodrome with hangars and other associated buildings, whilst a hotel has been constructed to the east. The Marish at Denham Farm and its associated outbuildings only partially retain original and contemporary setting. The connection with Denham Aerodrome (CVAo40) as the former officers' quarters also contributes to the value.

Park Lodge Farmhouse (CVAo48)

- 4.3.26 Park Lodge Farmhouse (CVAo48) is a Grade II listed mid-18th century red brick farmhouse with a later 19th century rear wing. The farmhouse is set within a grouping of large modern agricultural buildings that effectively restrict its setting to the north and east.
- 4.3.27 The value of this asset lies in its historical and architectural interest as an example of an 18th century farmhouse and its relationship with what remains of the agricultural landscape in which it is situated.

Corner Hall (CVAo85)

- 4.3.28 Corner Hall is a Grade II listed late 16th to early 17th century timber-framed house, re-fronted and extended in the early 18th century. The value of this asset lies entirely in the historical and architectural interest as an early post-medieval rural residence. Its relationship with the agricultural landscape in which it developed has essentially been lost due to construction of the North Orbital Road to the west and excavation of the gravel pits in the Colne Valley to the east.

Pynchfield Manor (CVAo91)

- 4.3.29 Pynchfield Manor is a Grade II listed late 15th century to early 16th century timber-framed house with red brick nogging and casing. The house was re-floored in the 17th century and cased and extended in the 18th century. The house was further extended in brick in the 19th century.
- 4.3.30 The value of this asset lies in its historical and architectural interest as a modified late medieval and early post-medieval manor house. The landscape context in which Pynchfield Manor developed has now been almost totally removed. Its setting therefore does not contribute to the value of the asset.

May Cottage (CVAo93)

- 4.3.31 May Cottage is a Grade II listed early to mid-17th century timber-framed house with brick nogging.
- 4.3.32 The value of this asset lies in the historical and architectural as a post-medieval rural residence. The landscape context in which May Cottage developed has now been almost totally removed. Its setting therefore does not contribute to the value of the asset.

Church of St Thomas of Canterbury, West Hyde (CVAo95)

- 4.3.33 The Church of St Thomas of Canterbury at West Hyde (CVAo95) is a Grade II listed Neo-Norman style parish church built in 1844 by Thomas Smith.
- 4.3.34 The value of this asset lies in the historical and architectural interest as an interesting example of a revivalist piece of Victorian church architecture. The Church of St Thomas of Canterbury sits within a setting that has been curtailed to the west by the North Orbital Road and to the east by excavation of the gravel pits within the floor of the Colne Valley. Beyond the church enclosure setting plays no part in contributing to the value of this asset.

Lynsters Farmhouse and Cottage (CVA096)

- 4.3.35 Lynsters Farmhouse and Cottage (CVA096) are a Grade II listed 15th century timber-framed house cased in red brick and extended in the early 18th century, with later 19th century extensions and alterations. This was originally a single dwelling but has since been divided to make two. To the north of the house lies a range of large modern agricultural buildings that effectively remove any setting to this side. The historic landscape character to the south-east has been entirely removed by the lakes formed by aggregate extraction in the floor of the Colne Valley and to the west lie prairie fields and the North Orbital Road.
- 4.3.36 The value of this asset lies in its historical and architectural interest as an example of a modified late medieval rural dwelling. The landscape context in which Lynsters Farmhouse and Cottage developed has now been almost totally removed. Its setting therefore does not contribute to the value of the asset.

4.4 Selected designated built heritage assets within the zone of theoretical visibility

- 4.4.1 The criterion for inclusion within this section is that the Proposed Scheme is assessed in the Impact Assessment Table in Volume 5: Appendix CH-003-007 as having a major or moderate adverse effect upon a designated asset which lies within the ZTV, but outside of the 500m study area. Descriptions and considerations of the significance of all designated assets within the ZTV can be found in the Gazetteer in Volume 5: Appendix CH-002-007.
- 4.4.2 There are no designated heritage assets within the Colne Valley which are located within the ZTV, but outside of the 500m study, that are deemed to have a major or moderate adverse effect as a result of the Proposed Scheme.

5 Historic map regression

- 5.1.1 The analysis of the cartographic evidence for the study area has been integrated within the archaeological and historical baseline narrative (Sections 3 - 4) and within the historic landscape section (Section 6).

6 Historic landscape

- 6.1.1 The study area spans the Colne Valley with the eastern boundary skirting the urban settlements of Uxbridge and Ickenham. The western side of the valley has also been impacted by modern residential and commercial development at New Denham, Denham Green and Maple Cross with the western boundary of the study area formed by the M25 motorway.
- 6.1.2 The alluvial plain of the River Colne which forms the central area of the study area has also been subject to extensive gravel extraction in the 20th century and has also been dissected by the GWR railway line, Northern Orbital Road and the Grand Union Canal.
- 6.1.3 The east facing slope and the southern part of the west facing slope of the Colne was formerly characterised by lowland moor and heath that underwent early enclosure. The earliest record for private enclosure at Harefield is dated to 1315 and it is likely that the majority of the parish had been privately enclosed before 1700 barring the large tracts of waste, common heath and moor⁴⁰. By 1800 the area's importance as a pastoral zone supplying milk to London had been firmly established. Pastoral and livestock farming remained the principal agricultural character of the area into the early years of the 20th century.
- 6.1.4 An almost continuous belt of ancient woodland stretches to the north of Denham Green. This comprises Holly Hill Wood (CVAo38), Nightingale Wood (CVAo39), Denham Marsh Wood (CVAo41), Battlesford Wood (CVAo45), Oakend Wood (CVAo51), Northmoor Wood (CVAo52), Great Hallings Wood (CVAo56), Nockhill Wood (CVAo65) and Juniper Wood (CVAo67).
- 6.1.5 To the west of the gravel pits the 1590 Way map shows that the open fields around Denham (CVAo13) survived up to at least the late 16th century. Irregular private enclosure close to Denham and along the alluvial plain of the River Colne appears to have occurred in the 17th to 18th centuries. The area north of Shire Lane and west of the Northern Orbital Road, appears to have remained as large open fields dissected only by tracks, lanes and small water courses up to the present day. Although these fields resemble 20th century prairie fields they appear to be relatively unchanged since the medieval period apart from being subject to chalk and mineral extraction in places.
- 6.1.6 The south and western limit of this area is broadly demarcated by the line of Shire Lane (CVAo94) which marks the County boundary between Buckinghamshire and Hertfordshire and may also indicate the line of a Roman road that continued in use as a trackway through the early medieval and medieval periods to the present day.
- 6.1.7 To the south of the belt of ancient woodland the historic landscape character is better preserved with some survival of pre-parliamentary enclosure. Designed landscapes of 17th and 18th century date are present at Denham Court (CVAo07) and at Denham Place (CVAo01) and a 20th century designed garden is located at Little Halings

⁴⁰ Reynolds, S. (ed), (1962), *A History of the County of Middlesex: Volume 3*, Victoria County History, London

(CVA072). This area also contains the World War I airfield at Denham (CVA041) which remains in use as a civilian airfield.

- 6.1.8 On the higher ground to the north-west of Denham and especially between Harefield and Ickenham, areas of pre 19th century landscape survive, principally as areas of heath, ancient woodland (including Old Park Wood (CVA090), Clay Pit Wood (CVA109) and Scarlet Spring (CVA110)) and common land separated by field systems created by pre-parliamentary enclosure. This character is more prevalent in the neighbouring South Ruislip to Ickenham study area (CFA6).

6.2 Historic Hedgerows

- 6.2.1 There are no hedgerows considered to be of historical importance under the Hedgerows Regulations 1997 (criteria for archaeology and history).

7 Historic parks and gardens

7.1 Introduction

- 7.1.1 An aspect of the post-medieval landscape was the creation of private parkland, often designed as pleasure grounds for the aristocracy and rising gentrified class.
- 7.1.2 No designated parks and gardens lie within 500m of the land required, temporarily or permanently, to construct the Proposed Scheme. The following non-designated park and garden lies within 500m of the land required to construct the Proposed Scheme.

Little Halings (CVA072)

- 7.1.3 The main house at Little Halings appears to have been constructed between 1883 and 1899. A smaller house had been on the site to the south-east of the new one prior to 1876, associated with a relatively extensive rectangular garden. In 1927 Gertrude Jekyll was commissioned to redesign the gardens at Little Halings. Formal gardens west of the new house and west of the original garden appear on maps after 1927 along with a formal garden within the courtyard of the new house. Further gardens south-west of these appear by 1934, but have since been removed. The original house built prior to 1876 has been demolished and a new house built on the site.
- 7.1.4 These gardens were originally bounded to the north, west and south by pasture and woodland which remains today largely as it was in the 19th century. East of Little Halings was Tile House. A dwelling had existed on this site at least since 1590 and by the 19th-century this had an extensive garden incorporating woodland areas. The Tile House is no longer extant and a new house has been constructed to the north of it since 1999. The extensive Denham Grove Hotel and business facility now operates from the site. These new buildings are to some extent screened from Little Halings by a narrow belt of woodland.
- 7.1.5 The gardens at Little Halings remain largely within their original setting and maintain their relationships with each other and Little Halings house. Whilst new developments east of Tile House Lane detract to some degree from the original setting of the gardens, the original character of the area has not been totally destroyed with open space and numerous trees remaining.

8 Archaeological character

8.1 Introduction

- 8.1.1 To determine the archaeological potential for the study area, it was sub-divided into archaeological character areas. These archaeological character areas are derived from a consideration of the current topography, geology and current landuse. From these factors the potential for recovery of archaeological remains is considered. Modern landuse is also considered.
- 8.1.2 No archaeological sub-zones have been identified within this study area due to its short length and uniformity of the archaeological character area.

8.2 Character areas

- 8.2.1 In terms of broad archaeological character area the study area comprises in turn northwards the east side of the Colne Valley, the Terrace Gravels within the Colne Valley, and the west side of the Colne Valley.

Archaeological character area 1: east side of Colne Valley

- 8.2.2 This character area is predominantly underlain by a solid geology of London Clay of Eocene date overlain in parts by superficial deposits, including Head deposits and Terrace Gravel including the Harefield Terrace. The topography is gently undulating with a relatively steep slope into the Colne Valley to the west. Drainage is to the west and south into the River Colne and thence the River Thames. The land was formerly part of the pastoral dairy belt⁴¹.
- 8.2.3 Suburban expansion during the late 19th and 20th centuries replaced a predominately pastoral landscape. Expansion saw the creation of significant routeways into London, the Grand Union Canal and railways. The predominately suburban nature that now occupies parts of this area serves to partially mask the visibility of archaeological assets. Colluvium on the lower slopes may also serve to mask archaeological features and deposits.
- 8.2.4 The area lies adjacent to the Colne Valley with predominantly south and west facing slopes which have a good potential for archaeological remains in undeveloped areas. This potential is poorly represented by recent archaeological investigation within this study area although scattered findspots within it and evidence from archaeological investigations in the adjacent Ruislip and Ickenham study area (CFA6) support the identification of this potential.

Archaeological character area 2: Terrace Gravels within Colne Valley

- 8.2.5 This character area is one formed by Thames Terrace deposits associated with the Colne and Ancient Thames river channel. The area features a former channel of the

⁴¹ Beckley, R., (2007), *Colne Valley Park: Historic Landscape Characterisation Project*, English Heritage, Swindon.

proto-Thames, and which from the Epipalaeolithic period onwards was a natural routeway from the Thames onto the Chiltern massif and to the north.

- 8.2.6 The current landuse is predominately open flooded gravel pits of 20th century date which have removed almost all of the Terrace and Alluvial deposits within the valley floor for a circa 13km distance between Denham and Rickmansworth. This area was formerly part of the pastoral dairy belt, but the historic landscape has now predominantly been replaced by a flooded extractive landscape which has been returned to nature.
- 8.2.7 The Thames Gravels have a recognised potential for archaeology of all periods and within the Colne Valley. These deposits have been mainly removed within the study area by aggregate extraction and there are numerous reports of finds of all periods being recovered during the extractive process. Where pockets of Terrace deposits survive within the valley floor there remains a high archaeological potential.
- 8.2.8 This potential is particularly important with regard to the Palaeolithic period and specifically the Epipalaeolithic and Early Mesolithic periods. Preserved ground surfaces of these periods have been recognised outside of the study area at Three Ways Wharf, Uxbridge and at The Leas, Denham. Within the study area there are hints that similar ground surfaces may survive near Dews Farm (CVA023) where Early Mesolithic flints have been recovered. Earlier Palaeolithic tools have been recovered from within the Terrace Gravels (CVA044) although whether these were within a primary context remains in doubt.
- 8.2.9 Aerial photographic surveys can provide good detection of archaeological sites from the later prehistoric period onwards, and outside the gravel extracted area and suburban zone there may again be good survival of archaeological remains. This may include the mound to the south of Savays (CVA024) which has a form typical of a Bronze Age round barrow.

Archaeological character area 3: west side of Colne Valley

- 8.2.10 This character area is predominantly underlain by a solid geology of the clays, silts and sands of the Eocene Lambeth Group overlain in parts by superficial deposits, including Pleistocene Head deposits and Terrace Gravels. A low ridge of Chalk of the Seaford Formation extends east from the Chiltern massif, the edge of which is broadly marked by the M25, between Denham Green and Maple Cross. This ridge lies within the angle formed by the confluence of the River Misbourne with the River Colne. The Chalk is in part overlain by Pleistocene Head deposits
- 8.2.11 The topography is gently undulating with a relatively gentle slope into the Colne Valley to the east. Drainage is to the east and south into the River Colne and thence the River Thames. The land was formerly part of the pastoral dairy belt.
- 8.2.12 Suburban expansion during the late 19th and 20th centuries replaced a predominately pastoral landscape. Expansion saw the creation of significant routeways into London, the Grand Union Canal and railways. The suburban developments that now occupy parts of this area serve to partially mask the visibility of archaeological assets.

Colluvium on the lower slopes may also serve to mask archaeological features and deposits.

- 8.2.13 The area lies adjacent to the Colne Valley with predominantly south and east facing slopes within a confluence of two rivers. Such a location has a high potential for archaeological remains in undeveloped areas. This is demonstrated by the identification of an ancient land surface in association with Neolithic and Bronze Age finds from near the M25 at Mopes and Warren Farms (CVA078) and the Iron Age and Roman-British agricultural settlement identified at Denham Park farm and The Chenies (CVA076).

9 Analysis and research potential

9.1 Analysis of understanding

- 9.1.1 The Proposed Scheme occupies three main parts of the Colne Valley, two of which are similar in nature being the slopes on either side where there is a high potential for archaeology of various periods. The central area comprising the former alluvial plain of the Colne has been subject to significant gravel extraction and therefore has very low potential for archaeology across most of its area, although there are small areas with some potential in the 'islands' of un-quarried gravel and near Moorhall Road.
- 9.1.2 Human activity through all periods in the study area has largely been concentrated within and immediately adjacent to the valley of the Colne and especially on, and immediately adjacent to, the Terrace Gravels. Archaeological evidence for all periods is most likely to be found overlooking water courses where there are free-draining soils suitable for agriculture, and as such the potential for such features is considered greatest on the slopes overlooking the Colne Valley.
- 9.1.3 Discoveries elsewhere on the Thames Terraces (such as at Heathrow Terminal 5) have demonstrated the high potential for archaeology of all periods that can be expected on and adjacent to Terrace Gravels. The Terrace Gravels in the Colne Valley have a recognised potential for the Epipalaeolithic and Early Mesolithic periods in particular.
- 9.1.4 Within the Colne Valley the Thames Terrace gravel deposits are known to contain Palaeolithic stone artefacts such as found within the gravel terrace at Uxbridge Road near West Hyde Church and Normer Hill (CVAo44). These kinds of finds are known in the Thames Terrace deposits of the wider area and may be expected elsewhere in the study area, except where the relevant deposits have already been removed by gravel extraction.
- 9.1.5 On the eastern side of the valley there are deposits potentially containing evidence for Mesolithic activity in the area of Dews Farm, as indicated by finds of tranchet axes, cores and flakes, animal bones and teeth found at Dews Farm (CVAo21) and waste flakes and cores found at Dews Pit (CVAo29).
- 9.1.6 Neolithic to Bronze Age activity is suggested on the flanks of the Colne Valley by the recognition of an ancient land surface near Warren and Mopes Farm associated with Neolithic and Bronze Age artefacts (CVAo78).
- 9.1.7 Archaeological investigations at Denham Park Farm and Chenies (CVAo76) have identified Iron Age and Romano-British agricultural features. The evidence suggests that this area may have been little used or abandoned in the early medieval period. Utilisation of the site only resumed in the late medieval period.

- 9.1.8 In general the area is characterised by geologies that show cropmarks of archaeological features well and will be relatively responsive to geophysical prospection.

9.2 Research potential and priorities

- 9.2.1 The Proposed Scheme has the potential to increase our archaeological knowledge and understanding of the locality. Many research questions can best be formulated at either a scheme wide or at a county/multiple community forum area level. These will draw heavily on the regional and period research frameworks, which have been prepared with support from English Heritage^{42, 43, 44}.
- 9.2.2 This section presents research questions which are specific to the heritage assets, either known or suspected, within the Colne Valley (CFA7) study area. The archaeological character areas which are likely to contain the potential to address these questions are identified.
- 9.2.3 The research potential and priorities are considered on a chronological basis:

Early prehistory

- are there in-situ Palaeolithic deposits and particularly buried land surfaces within the study area? Can a deposit model be established that will help to place the Colne Terraces within the wider perspective of the morphology and chronology of the Thames Terraces? (archaeological character areas 1-3);
- what are the extent, date and character of the putative Mesolithic occupation and lithic working sites on the west facing at Dewes Farm (CVA022)? Are they inter-related? (archaeological character area 1);
- what is the nature of the Neolithic or Bronze Age ground surface previously identified near Mopes Farm (CVA078)? (archaeological character area 3);
- do Bronze Age cremations to the south west of Dewes Farm in the South Ruislip and Ickenham area (CFA6) and suspected Bronze Age round barrows at The Savay (CVA023) and west of Dewes Farm (CVA022) represent a significant Bronze Age presence in the area and how do these funerary rites relate to each other? (archaeological character area 1-3);

Late prehistory/Romano-British

- what is the chronology and nature of the agricultural exploitation of the higher ground and valley slopes in the prehistoric and Romano-British periods such as at Denham Park Farm and Chenies (CVA076)? Was the area continuously farmed or were there periods of abandonment? (archaeological character area 1-3); and

⁴² Oxford Archaeology and Buckinghamshire CC et al.,(Ongoing), *Solent Thames Research Framework: A framework for Berkshire, Buckinghamshire, Oxfordshire, Hampshire and the Isle of Wight*, Oxford Archaeology, Oxford.

⁴³ MOLA, (2002), *A research framework for London Archaeology*, Museum of London Archaeology, London.

⁴⁴ Essex County Council and English Heritage, (1999), *An archaeological research framework for the Greater Thames Estuary*, English Heritage, Swindon.

Early medieval

- was the area really abandoned/ sparsely populated during the early medieval period? If so at what point was the area re-utilised? (Archaeological character areas 1-3).

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